

Remarks

In response to the Office Action dated 30 March 2007, Applicant offers this amendment and remarks. Reconsideration and reevaluation is respectfully requested.

Examiner objected to claim 3 and required redrafting into Markush form. Claim 3 has been amended to incorporate the amendments suggested by the Examiner, and also to make it clear that the 'ball activated, weight activated and hydraulically activated' components referred to in the claim are each types of 'actuating means'. Applicant submits that the objection to claim 3 should now be withdrawn.

Additionally, a minor amendment has been made to claim 1, for clarity, to specify that the stabiliser blades include one "or" more jetting ports. Applicant submits that this amendment serves merely to clarify a typographical error in the claim, and that it is clear that nothing other than the amendment requested was intended.

Examiner rejected claims 1-5 and 8-12 under 35 U.S.C. 103(a) as being unpatentable over Rosenhauch (US 5,264,684) in view of Beeman (US 6,189,618). Also, claims 6 and 7 were rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenhauch in view of Beeman and further in view of Wood (US 6,474,423).

Applicant respectfully submits that the invention defined by independent apparatus Claim 1 is inventive over the disclosure of Rosenhauch in view of Beeman. In more detail, Applicant has the following comments.

The present invention, as defined by claim 1, takes the form of a downhole tool comprising a tubular body having an axial throughbore. A sleeve is mounted around the body, and includes one

or more stabiliser blades, which blades have one or more jetting ports. These jetting ports permit fluid to be directed from the axial throughbore of the tool body out through the jetting ports in the stabiliser blades and on to a surface of a well bore. Thus fluid is jetted from the throughbore of the tool body on to the well bore surface to, for example, carry out a cleaning operation or to circulate
5 fluid from the tool body bore to annulus. The flow of fluid from the body throughbore, through the jetting ports, and on to the well bore surface is selectively controlled by an actuating means. Accordingly, the jetting function is controlled by the actuating means.

The Examiner indicated that he believes Rosenhauch discloses a stabiliser and jetting tool having a sleeve; stabiliser blades; fluid nozzles; an axial bore; and a threaded connection to attach
10 the sleeve to the tool. The Examiner then went on to allege that Rosenhauch therefore discloses all of the features of the claimed invention with the exception of using a means to selectively direct fluid from the axial bore and circulate the fluid and jetting ports. However, Examiner alleged that Beeman discloses a tool comprising an axial bore; a stabiliser; flow ports that communicate from the bore to annulus; and means to selectively actuate the tool comprising a ball seat and ball. Accordingly,
15 Examiner rejected claim 1 on the grounds that it would have been obvious to a person of ordinary skill in the art to include means to selectively redirect fluid flow on the tool of Rosenhauch in view of Beeman, to result in a jetting tool that can be activated or deactivated.

Firstly, Applicant respectfully submits that Rosenhauch does not disclose all of the features that the Examiner indicated. In particular, Rosenhauch does not disclose a sleeve mounted around
20 the body of the tool, the sleeve including one or more stabiliser blades. In fact, the sleeve 28 referred to by the Examiner is a locking sleeve provided between an actuating sleeve 20 and a lower sub 16. As shown in the figures, the sleeve 28 of Rosenhauch effectively forms part of a body defining the tool central bore 46, and thus is not a separate component mounted around the body (defining the bore), but is effectively part of the body itself. Furthermore, the stabiliser blades 40 are

each provided as separate components, mounted in respective cavities 44 within a body 24 of the tool 10, and are not included in a sleeve mounted on a body of the tool. Examiner is referred in this regard to column 5, lines 33-35, 41-44 and 51-53 of Rosenhauch.

5 Additionally, the 'fluid nozzles' 41 are in fact optional ports provided for the purpose of exposing outer faces of 'pistons' 39 to annular pressure, as discussed at column 7, lines 24-28. Clearly therefore, these ports 41 are not jetting ports. Accordingly, Applicant additionally submits that Rosenhauch does not disclose a stabiliser and jetting tool, as suggested by the Examiner.

Secondly, and more significantly, Applicant submits that it would not have been obvious to the person skilled in the art to include a means to selectively redirect fluid flow on the tool of
10 Rosenhauch in view of Beeman, to have a jetting tool that can be activated or deactivated. In particular, Applicant submits that this would require significant modifications to the tool of Rosenhauch which would be specifically against the teachings of the document, and which would, if made, result in the Rosenhauch tool being unable to carry out its stated aim of providing a variable diameter stabiliser.

15 In more detail, Rosenhauch discloses a downhole adjustable stabiliser 10 having a stabiliser body 24 which is fixed to an actuating sleeve 20 by splines 26. A plurality of blade expanding pistons 34 are provided radially exterior of the locking sleeve 28 which, as noted above, is provided between the actuating sleeve 20 and the lower sub 16. Each piston 34 includes an annular seal 36 which is stated as being "for continual sealing engagement with the body 24" (column 5, lines 38-
20 41). Furthermore, it is stated that the stabiliser includes a central bore 46 for passing pressurised fluid from the surface to a drill bit, and an O-ring 48 carried on body 24, [which] in conjunction with piston seals 36 "maintains a fluid-tight seal with the sleeve 20 to separate internal pressure within the flow passage from pressure external of the stabiliser" (column 5, lines 57-63).

Accordingly, it is clearly a specific requirement that the central bore 46 of the Rosenhauch tool must not be capable of fluid communication with the tool exterior through the stabiliser blades 40. This is because the pistons 36 act to control the radial position of the blades 40 according to the differential pressure of fluid across the pistons 36 between the tool central bore 46 and the exterior of the tool. See, for example, column 7, lines 16-19 which states that "Fluid pressure thus acts upon the inner face of each of the pistons 34, while the annulus pressure, which is less than the internal pressure, acts on the opposing outer face of the piston 34". Indeed, Rosenhauch goes on, at column 7, lines 32-36 to state that the technique of the present invention "relies upon the pressure differential across the piston seals 36".

It will therefore be clear that the pistons 34 would not function to vary the radial position of the stabiliser blades 40 unless the outer faces of the pistons 34 are isolated from the fluid in the central bore 46 of the tool – otherwise a pressure differential would not exist, and both faces of the piston would experience a common fluid pressure. There would then be no radial movement of the pistons 34, and thus no variation of the radial position of the stabiliser blades 40. Accordingly, there is no circumstance where fluid can be allowed to flow from the central bore 46 to the ports 41 in the stabiliser blades and the tool still function as intended.

Applicant therefore reiterates his belief that the person skilled in the art would not be motivated to modify the Rosenhauch tool in the fashion indicated by the Examiner, and that, even if the skilled person were so motivated, such would be specifically against the teachings of the reference, and would result in the Rosenhauch tool ceasing to function and unable to carry out its stated primary purpose. Accordingly, Applicant respectfully reiterates his belief that the invention defined by claim 1 is inventive over the disclosure of Rosenhauch in view of Beeman, and that the rejection of claim 1 should be withdrawn.

Claims 2-5 and 8-12 are all ultimately dependent upon Claim 1. Accordingly, Applicant submits that the invention defined by these Claims is also inventive over Rosenhauch in view of Beeman, through their dependency upon an acceptable base Claim. In addition, claims 6 and 7 are both ultimately dependent upon Claim 1. Accordingly, Applicant submits that the invention defined by these Claims is also inventive over Rosenhauch in view of Beeman and further in view of Wood, through their dependency upon an acceptable base Claim. Applicant therefore submits that the rejections of claims 2-12 should be withdrawn.

Applicant respectfully submits that the present Application is now in order for acceptance, and requests favourable reconsideration thereof.

Respectfully submitted,

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Date

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